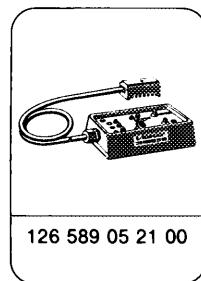


Special tool



Notes

Test cruise control/Tempomat with adapter only. If other testing and measuring instruments are used, the cruise control/Tempomat may be destroyed. During this test, the cruise control/Tempomat system is tested with the exception of the control unit.

Faults can be found by means of the adapter only if cruise control/Tempomat is permanently not functioning. Complaints such as temporary failure or poor control characteristics (e.g. shaking) cannot be checked with adapter. In such cases, proceed according to programmed repairs.

If testing with adapter indicates a faulty component, check plug connections for good contacting prior to replacement, e.g. the plug sockets should not be widened. Reshape widened plug sockets. Then check respective component once again.

Prior to testing by means of adapter, check battery voltage (> 11 V), stop lamps and speed indication for function. Repair, if required, and check cruise control/Tempomat for function prior to testing with adapter.

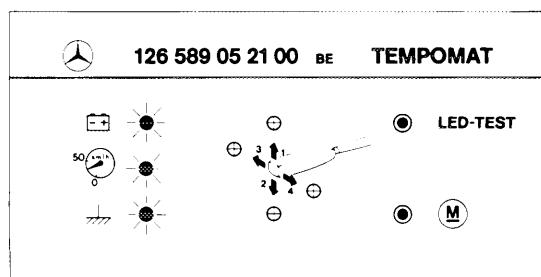
Preparation for test

- 1 Remove cover under instrument panel on side of driver.
- 2 Pull 14-point plug from control unit.
- 3 Connect test adapter to 14-point plug.
- 4 Test jacks in 14-point plug, reshape widened bushings.

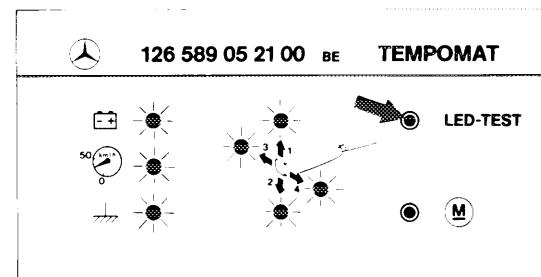
5 Switch on ignition. The following LED readouts will light up, if no fault is indicated.

Symbol	Models
Battery	all
km/h	123 with sensor on mechanical speedometer
Ground	107 with engine 103, 116.960   116.962 except  up to 83,  116.964 and 117, 123 with engine 617.95 except  81, 126 with engine 116.96,  116.963 except   up to 83,  116.965 and 117

5 Push "LED-TEST" push-button of test adapter and check whether all LED readouts are lighting up. If no LED readout is lighting up check connection of voltage supply and line-up of 14-pole coupler (refer to wiring diagram 54-580).

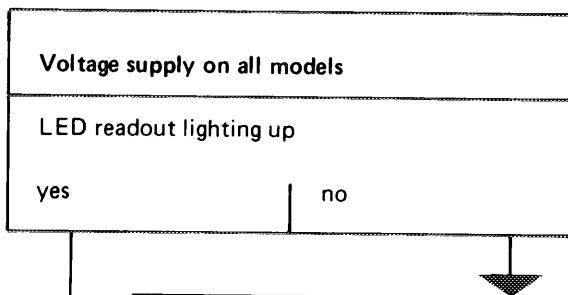


1543-9603

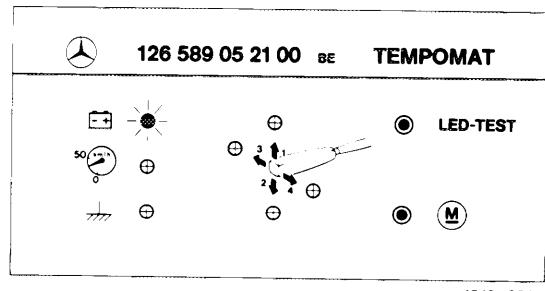


1543-9600

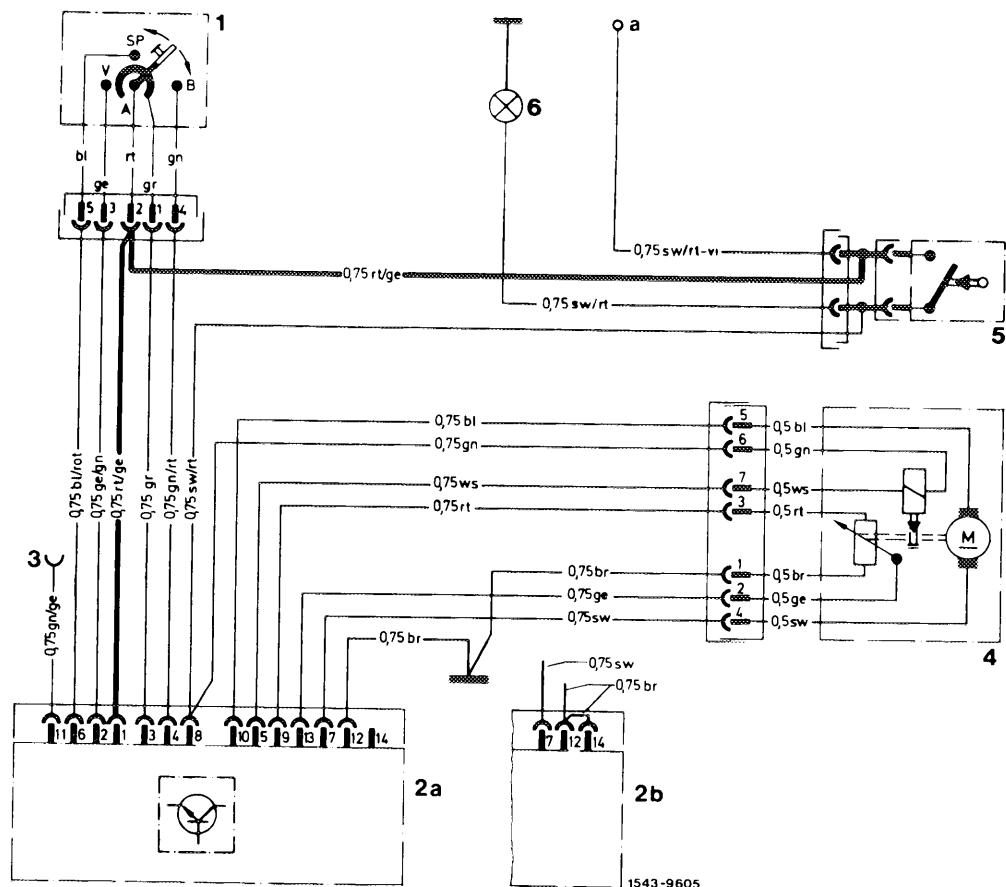
Test



Check lines for correct connection and passage, while paying attention to changed voltage supply (refer to 54–580).



1543-9604



Wiring diagram up to 08/81

- 1 Switch
- 2 a Control unit
- 2 b Control unit
- 5 Stop lamp switch

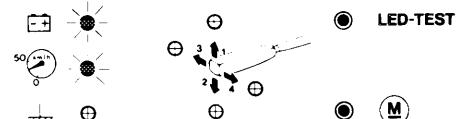
Sensor on mechanical speedometer
model 123 (except 123.033/053 (J)
1981 and 123.193 (USA) 1981)

LED readout lighting up

yes

no

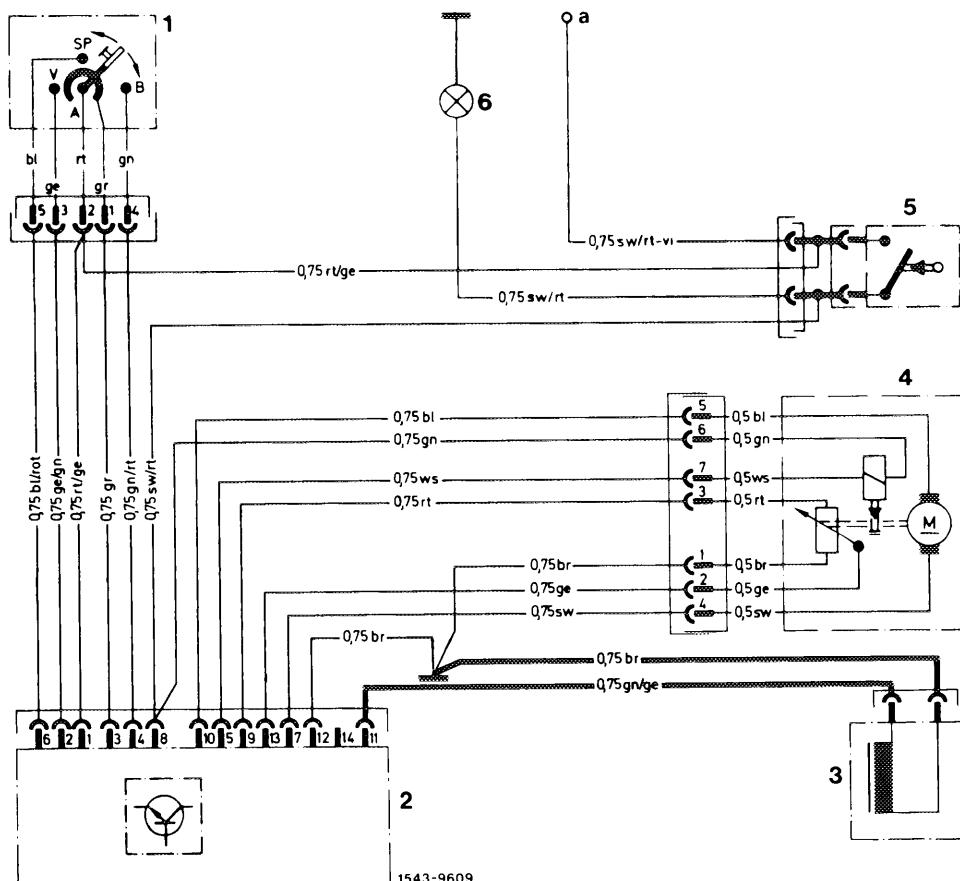
126 589 05 21 00 BE TEMPOMAT



1543-9608

Test lines for correct connection
and passage.

Replace sensor.



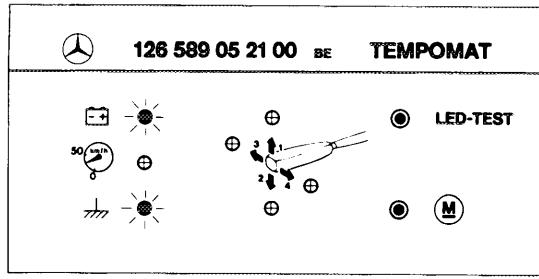
2 Control unit

3 Sensor

for model 123 except 123.033/053 (J) 1981 and 123.193 (USA) 1981

Ground connection on jack (plug) 14 of control unit on models:

107 with engine 103, 116.960 (USA) (J)
 116.962 except (CH) up to 83, (AUS)
 116.964 and 117
 123 with engine 617.95 except (USA) 1981
 126 with engine 116.961 (USA), 116.963
 except (CH) (S) up to 83, (AUS)
 116.965 and 117



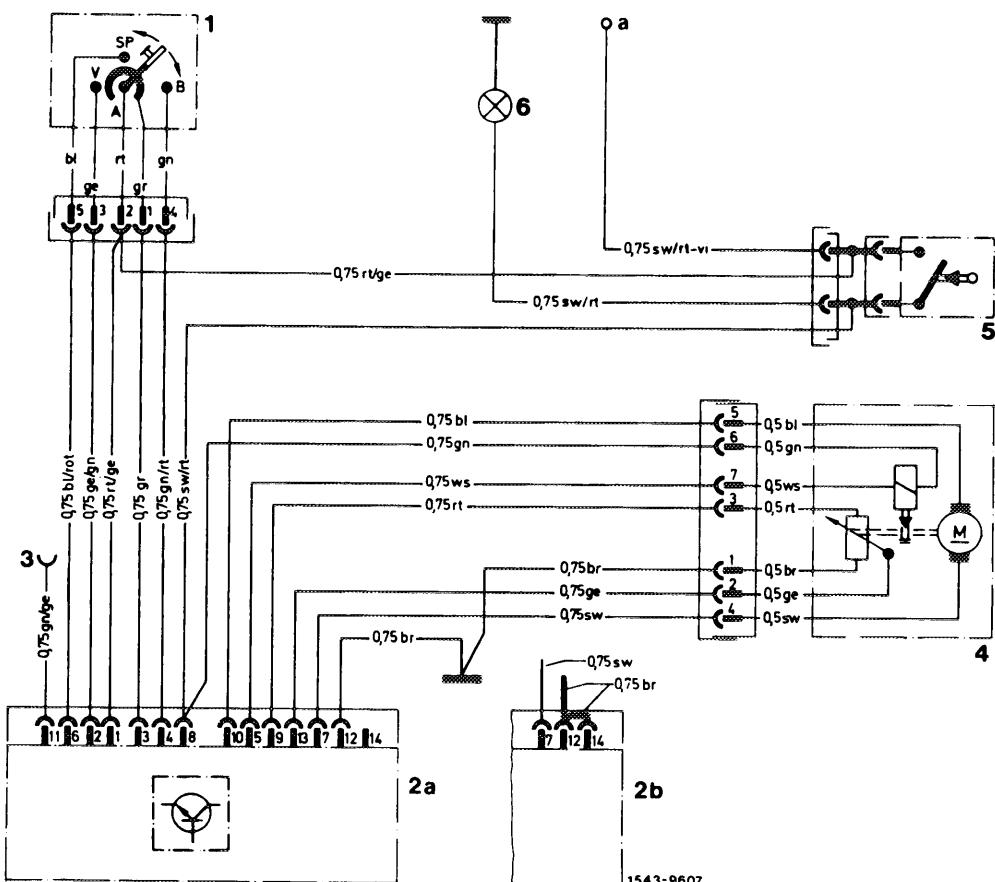
1543-9606

LED readout lighting up

yes

no

Recondition grounding line to 14-point plug.

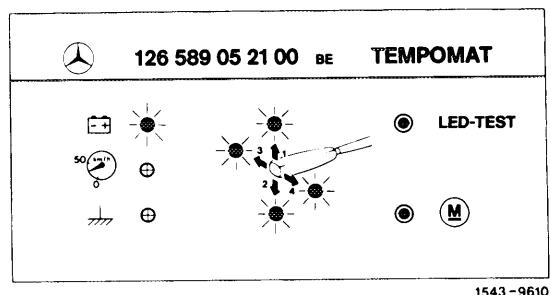


2b Control unit for
Models 107 with engine 103, 116.960 J USA, 116.962 except CH up to 83, AUS, 116.964 and 117
123 with engine 617.95 except USA 1981
126 with engine 116.961 USA 116.963 except CH S up to 83, AUS 116.965 and 117

Checking line harness and cruise control switch

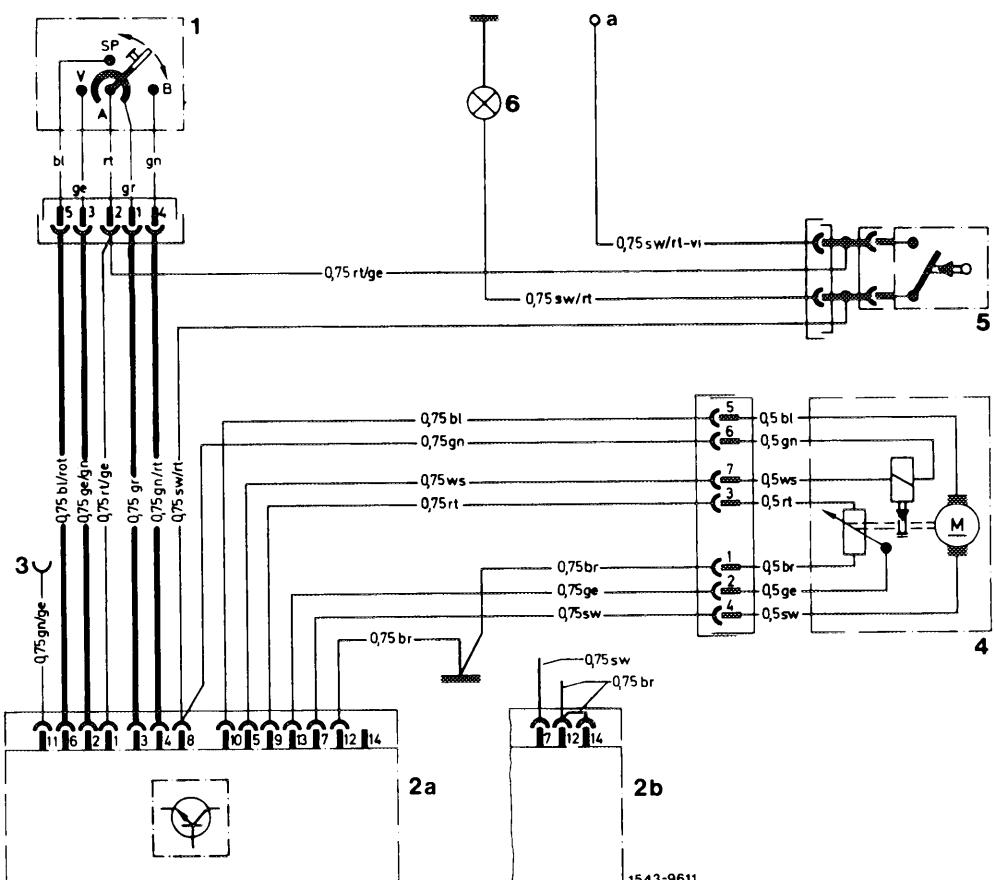
Cruise control switch position	LED readout
Accel	1
Decel	2
Off	3
Resume	4

Respective LED readout lighting up



Test lines for correct connection
and passage.

Replace switch.

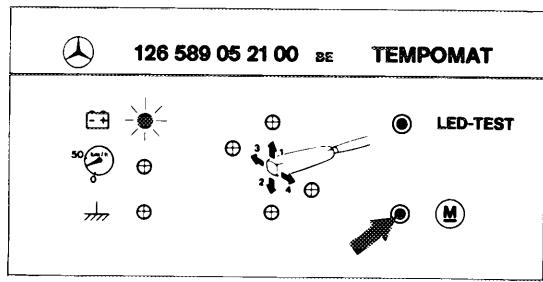


1	Switch
B	Accel
V	Decel
A	Off
SP	Resume
2a	Control unit
2b	Control unit

Testing actuator.
Depress push-button switch M.

Regulating linkage and accelerator pedal are moving uniformly to full throttle position and remain there.

yes no

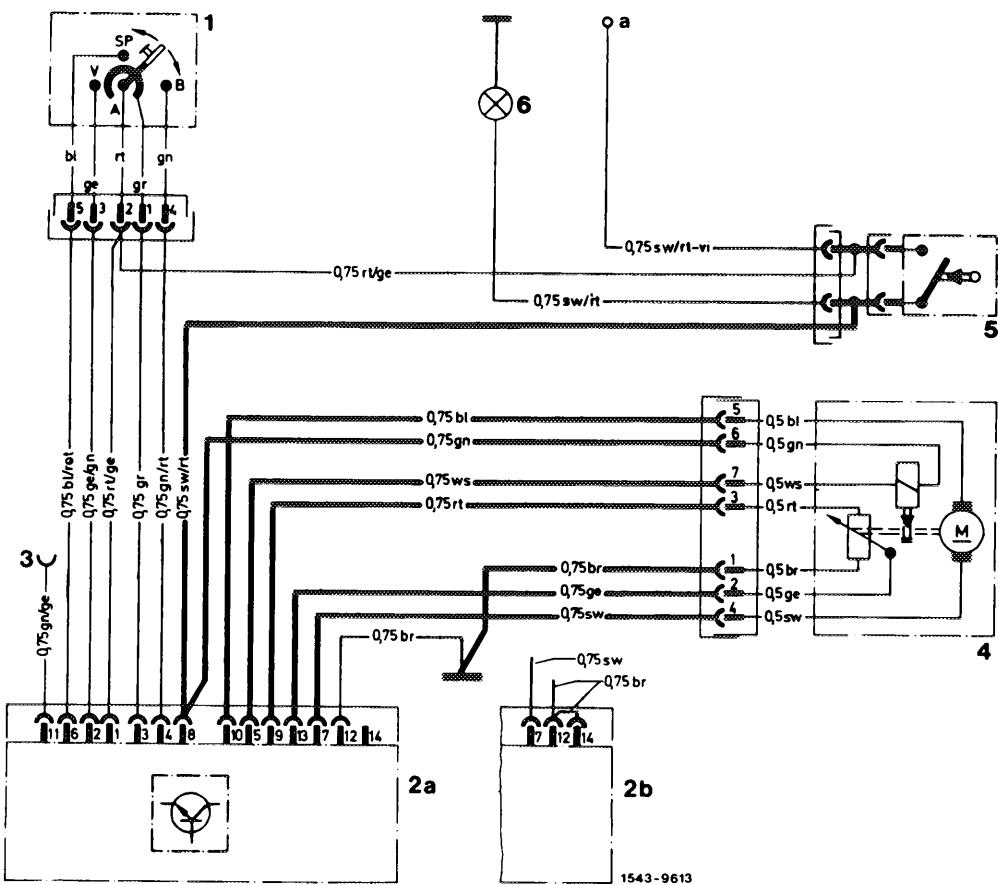


Regulating linkage and accelerator pedal are not moving:

- 1 Check regulating linkage.
- 2 Check lines for correct connection or passage, pay attention to changed voltage supply (54–580).
- 3 Replace actuator.

Regulating linkage and accelerator pedal are constantly moving back and forth:

- 1 Test contacting of plug connection line harness/actuator harness.
- 2 Replace actuator.



Wiring diagram up to 08/81

2 Control unit

4 Actuator

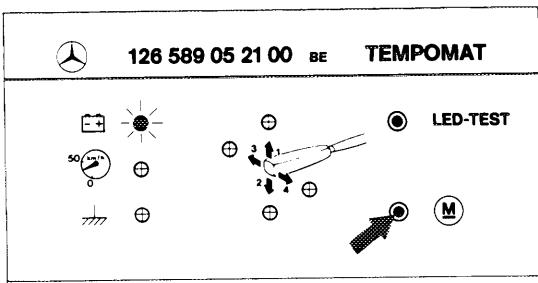
5 Stop lamp switch

Test cruise control cutout while braking.
Depress push-button **M**.
Regulating linkage and accelerator pedal
in full throttle position!
Push brake pedal.

Regulating linkage and accelerator pedal are
immediately moving into idle position.
Then release push-button switch.

yes

no



1543-9612

Test regulating linkage for
easy operation.

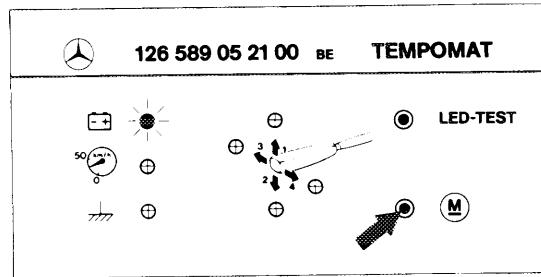
Replace actuator.

Test cruise control cutout while declutching
(manual transmission only).
Pushbutton **M** is pushed.
Regulating linkage and accelerator
pedal are in full throttle position!
Depress clutch pedal.

Regulating linkage and accelerator pedal will
move immediately into idle position. Then
release pushbutton switch.

yes

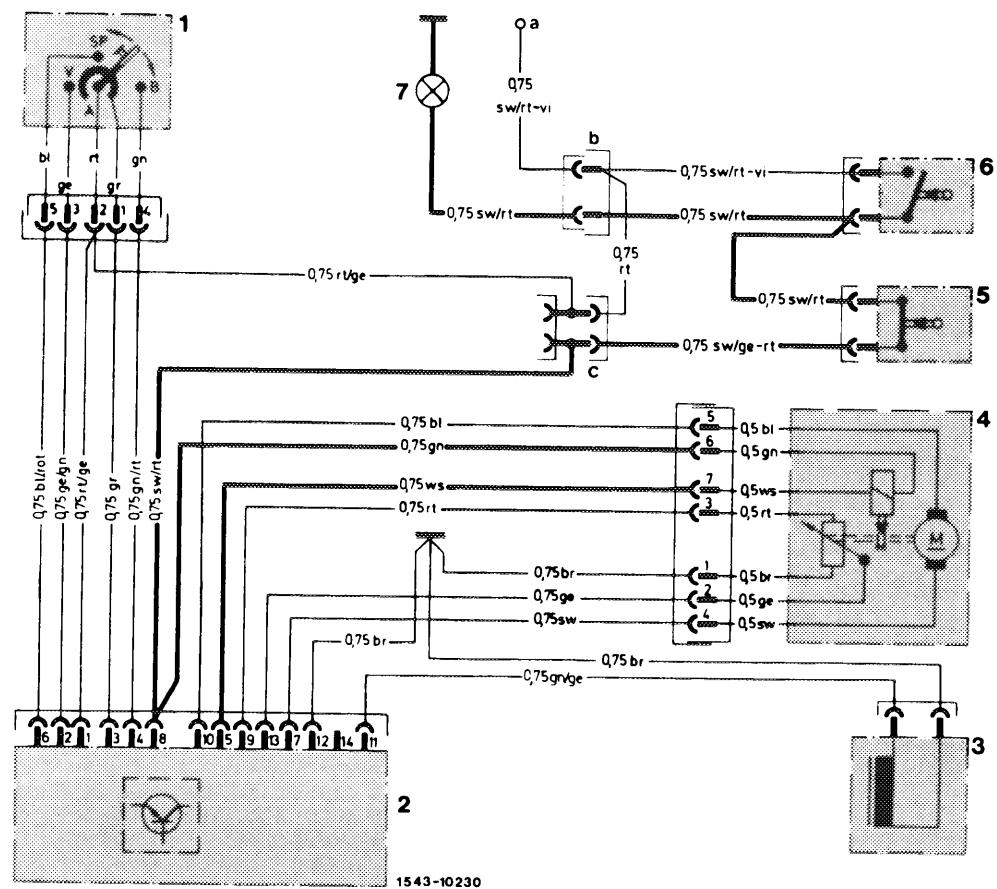
no



1543-9612

Lines are shorted.

Switch on clutch pedal defective.



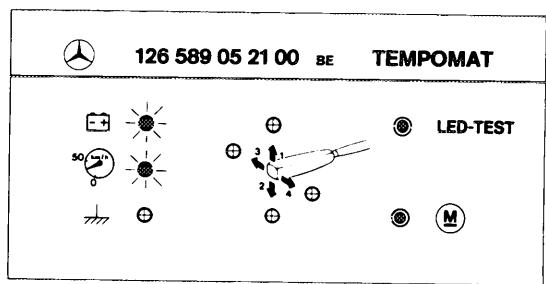
Test harness and cruise control connection of electronic speedometer, speed readout should be in order.

Models 107, 123.033/053 (J) 1981,
123.193 (USA) 1981 and 126,
drive vehicle at max. 50 km/h.

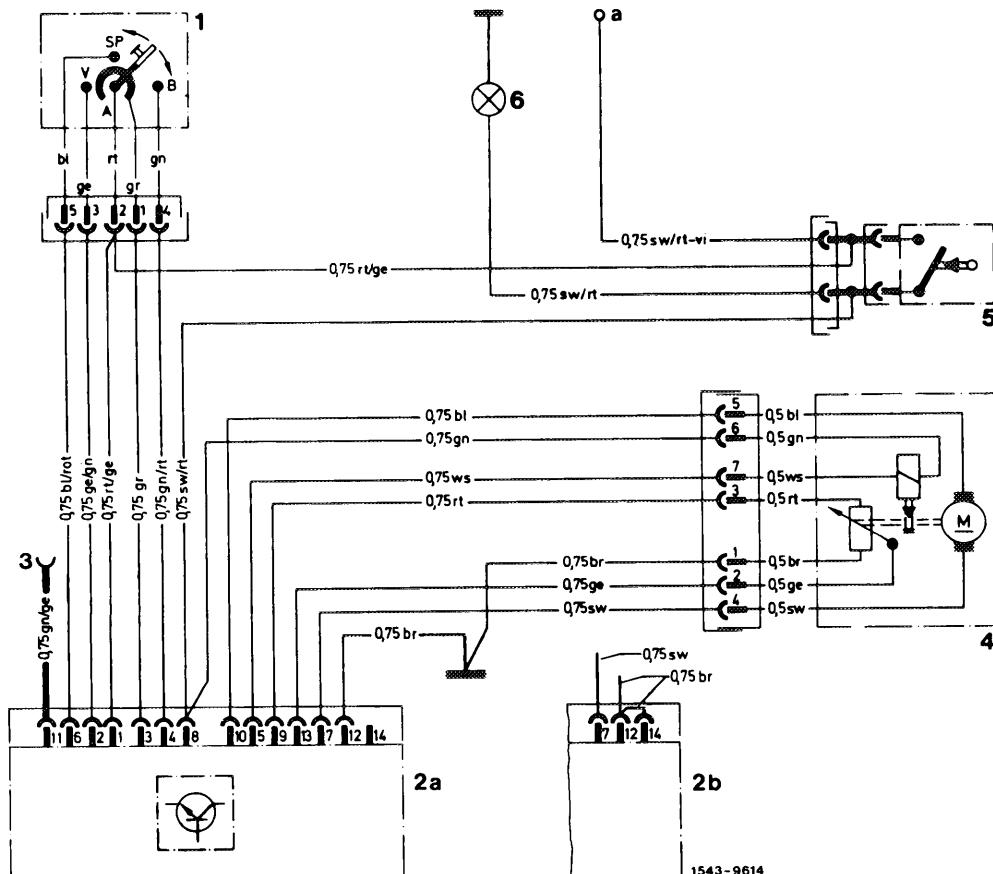
LED readout flashes or lights up.

yes

no



Test lines for correct connection and passage.
Replace speedometer.



2a Control unit
2b Control unit
3 Cruise control connection on speedometer

Disconnect test adapter.

End of test.

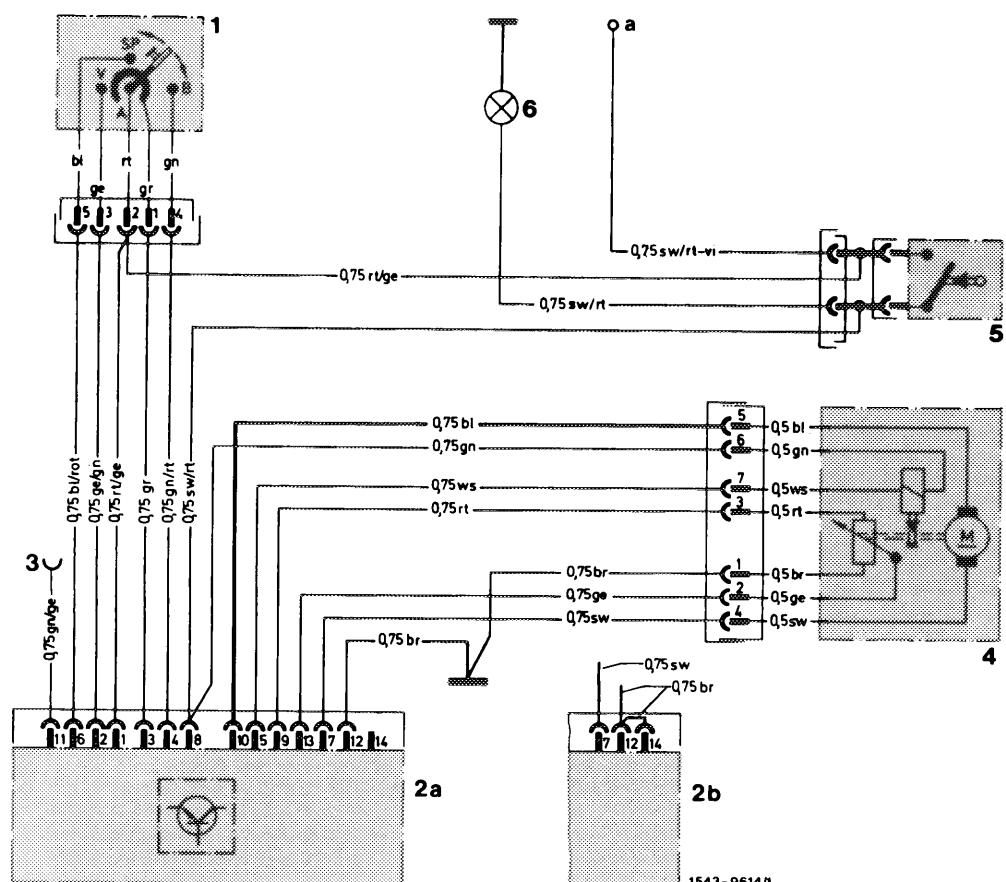
Check blue line from plug connection actuator jack 5 to plug connection control unit plug 10 for ground connection.

Ground connection

no

yes

Recondition blue line
or replace.



- 2a Control unit
- 2b Control unit
- 4 Actuator

On control unit with coding plug,
check coding plug (54–506).

Coding plug in order

yes

no

Replace coding plug (54–577).

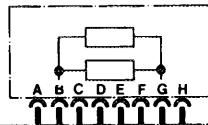
N 4/2 Control unit, cruise control/Tempomat
R 29 Coding plug, cruise control/Tempomat

Replace control unit.

R 29

N4/2

16 2 1 3 4 5 6 7 8 9 10 11 12 13 14



1544-14 247

End of test.